

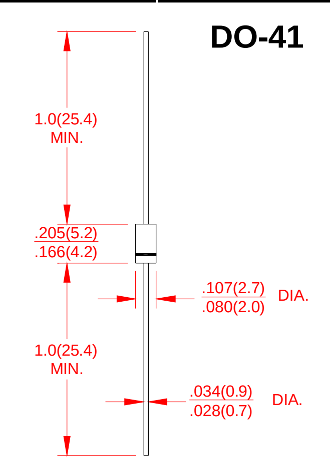
AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

1N4001 THRU 1N4007

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.0 Ampere

FEATURES

- Low coat construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260℃/10 secods/.375"(9.5mm)lead length at 5 lbs(2.3kg) tension



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012 ounce, 0.33 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

		SYMBOLS	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length at T_A= 25℃		$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage @ 1.0A		V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	T_A = 25℃	I_R	5.0							μA
	T_A = 100℃		50							
Maximum Full Load Reverse Current, full cycle average 0.375"(9.5mm)lead length at T_L=75℃		$I_{R(AV)}$	30							μA
Typical Junction Capacitance (Note 1)		C_J	13							pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	50							℃/W
Operating Junction Temperature Range		T_J	-55 to +150							℃
Storage Temperature Range		T_{STG}	-55 to +150							℃

Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
2. Thermal Resistance from junction to terminal 6.0mm^2 copper pads to each terminal.
3. The chip size is 40mil×40mil





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RATING AND CHRACTERISTIC CURVES 1N4001 Thur 1N4007

